

<p>98-596866/51 A97 D25 E19 (A25) HENK 97.05.23 HENKEL KGAA *EP 879874-A2 97.05.23 97DE-1021708 (98.11.25) C11D 1/14, 1/04, 1/24, 1/52, 1/72, 1/83, 1/831, 1/90, 1/94, 3/075, 3/08, 3/386 Encapsulated detergent giving correct dose of concentrate with contact with skin - useful for manual cleaning especially dishwashing and soaking, has water-soluble or dispersible capsule, preferably of gelatin, containing anhydrous surfactant (Ger) C98-179269 R(AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI) Addnl. Data: HEES U, BARTHEL W, HUCHLER S, KUENZEL W, BAYARRI M, DE LEEBEECK N 98.05.14 98EP-108768</p>	<p>A(3-C1, 12-W5, 12-W12B) D(11-A1F1, 11-A1F2, 11-D1A, 11-D2) E(10-A9A)</p>
<p>Encapsulated agents for manual cleaning, especially dishwashing, comprise: (a) an agent containing 20-100 wt.% alkyl- and/or aryl-polyether sulphate surfactant(s) of formula $R^1(CHR^2CH_2O)_xOSO_3M$ (I) and/or alkyl- and/or aryl sulphate surfactant(s) of formula R^3OSO_3M (II) and (b) a water-soluble or water-dispersible encapsulating material (III). R^1, R^3 = 6-22 carbon (C) aliphatic hydrocarbyl and/or aromatic hydrocarbyl, optionally substituted by 1-18 C alkyl; R^2 = hydrogen (H) and/or 1-4 C alkyl; x = 0.1-6; M = a metal cation or ammonium</p>	<p>ion. Also claimed is the use of agents containing anhydrous surfactant, encapsulated in (III), as manual cleaning or dishwashing agents. <u>USE</u> The products are useful for cleaning, especially for dish-washing and pre-treatment for softening persistent soil. <u>ADVANTAGE</u> Commercially-available detergents are usually fluid to viscous liquids and even concentrates have a high water content, which reduces the concentration of active material. Both solid and concentrated liquid detergents can irritate the skin. Consumers also tend to use over-doses of concentrates. Encapsulation makes it possible to use anhydrous surfactant without contact with the skin. The capsules can be made in various capacities to suit the normal doses for private or industrial use. EP 879874-A+</p>

<p><u>PREFERRED CAPSULES</u> The capsules have a capacity of 0.5-300 ml. The material contains natural or synthetic polymer(s), especially gelatin. <u>PREFERRED</u> The agent contains 0-60 wt.% non-ionic and/or amphoteric surfactant(s), sequestrant and/or additive(s). <u>EXAMPLE</u> A composition for manual dish-washing contains 58.8 wt.% sodium 12-14 C fatty alcohol ether (2 ethylene oxide) sulphate, 29.4 wt.% sodium 12-14 C fatty alcohol sulphate, 7.8 wt.% cocoamidobetaine and 3.9 wt.% cocoyl-monoalkanolamide. This was encapsulated in gelatin. A solution of a 4.2 g capsule in 10 l water easily removed typical soil from glasses, crockery and cutlery. The cleaning power was comparable with that of a liquid formulation of the same composition. (SB) (12pp0016DwgNo.0/0)</p>	<p>EP 879874-A</p>
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